

Sample Test Plan

1.0 Operational Readiness Testing Overview

Operational Readiness Testing verified that system setup steps have been completed for Federal Administrator, Alert Manager, System Administrator, Accounts Payable and the General Ledger. In addition, the availability of interface extraction programs, upload programs, user interfaces and interface mapping tables that were relevant to Phase II were confirmed to be available and in the appropriate directory on the server. The Accounts Receivable module was not included during Operational Readiness Testing.

The main purposes of Operational Readiness Testing was to:

- Test exception handling and error processing.
- Test security handling.
- Confirm functional configuration.
- Validate all of the above within a simulated production environment.

Entry Criteria for Operational Readiness Test Execution:

- All applications and application components necessary for cycle to be completed have been inventoried and promoted.
- Operational Readiness Test plan is complete.
- Resources to execute tests are available.
- The Operational Readiness Test environment is in place.

Exit Criteria for Operational Readiness Test:

- All test cases and conditions have been executed successfully.
- Identified errors and defects have been corrected and re-tested.
- All issues and incidents have been properly documented and worked through the resolution process.
- All reviews were conducted, and that the review yields satisfactory results.

The FMS, Phase II, Operational Readiness Test Plan was designed to advance the objective of the U.S. Department of Education (DOED) Student Financial Assistance (SFA) office software testing strategy. Like the DOED SFA office software testing strategy, the FMS, Phase II, Operational Readiness Test Plan has been designed to, ensure production ready, quality applications.



1.1 Operational Readiness Test Scope

Operational Readiness Test cases will be based on the following:

- Functional Configuration/Setup
- Interface programs/tables
- Access and Security
- Execution, Operations and Network Architecture

1.2 Operational Readiness Testing Roles and Responsibilities

Operational Readiness Testing involved both FMS Implementation Team and SFA personnel. The primary roles for the Operational Readiness Testing effort include Test Team Analyst and SFA-FMS Test Liaison. These roles are described below:

1.2.1 TEST TEAM ANALYSTS

- Assisted in the development of the Operational Readiness Test Plan.
- Executed the Operational Readiness tests.
- Evaluated the Operational Readiness test results.
- Reported all incidents and problems encountered during testing activities.

Mr. Dave Abrams, Ms. Constance Herron, Mr. John Kim, Mr. Stephen Malleck, and Mr. Jeff Ross of the FMS Implementation Team were the Operational Readiness Test Team Analysts.

1.2.2 SFA-FMS TEST LIAISON

- Participated in the formal walkthrough of the Operational Readiness Test Plans.
- Defined Operational Readiness test cases and scripts.



- Recorded all incidents and problems encountered during testing activities.
- Monitored the testing process to identify problems, mitigate potential risks and schedule slippage.
- Reviewed test results with the test team to clarify questions, concerning system functionality and discrepancies with expected results, and ensured that the Operational Readiness Testing activity was a valid and complete exercise.
- Certified that the testing process was comprehensive in scope and complete.

Mr. Jon Bollinger was the SFA-FMS Test Liaison.

1.3 Executing and Validating Test Cases

Each test case was designed as a discrete, executable exercise that would return a predictable result. Test Cases included a setup, input, and expected result sections. Each test case was designed to verify the functionality of a business scenario and described step by step how the business scenario was being tested.

The actual test results were then compared to the expected results to determine if the test ran correctly, "Pass" (or incorrectly, "Fail") by the Test Team Analyst executing the case.

A "discrepancy" was defined as the difference between what was *expected* to happen and what *actually* happened. Discrepancies were initially evaluated to ensure that they represent system defects. The initial evaluation of discrepancies included:

- Review of the test data;
- Review of the test environment;
- Review of test scripts;
- Review of actual system functioning.

If it was determined that the "discrepancy" represented a system defect, the incident was forwarded to the business requirements, software architecture or technical support team for assessment and proposed





solution. After successfully testing the modification, the incident was designated as "closed" by the SFA-FMS Test Liaison.

Validation of a test case occurred when the specific test activity has a status of "Pass" and was reviewed by the SFA-FMS Test Liaison. Completion of Operational Readiness Testing was dependent upon each test activity having a status of "pass" and it's subsequent review by the SFA-FMS Test Liaison.

2.1.0 Functional Configuration/Setup

The functional configuration of the system for Phase II of the SFA FMS project includes, but is not limited to, the following setups:

- Setup procedures for the General Ledger (G/L) module,
- Setup procedures for the Accounts Payable (A/P) module,
- Setup procedure for the Accounts Receivable (A/R) module,
- Setup procedures for the Federal Administrator module,
- Setup procedures for the Alert Manager module,
- Setup procedures for the System Administration module, and
- Install scripts

The application will be migrated from test to production using the configuration management process. After production setup and configuration has been completed, a copy of production version of the application will be moved to the development (DEV1) instance of the database. In the DEV1 instance of the database, members of the FMS Implementation team will perform additional testing to validate the production version of the application. Changes to the configuration will be made in the DEV1 instance of the database and after validation will be manually entered in the production (PROD) instance of the database.

2.1.1 Results of Functional Configuration/Setup Test Cases

Operational readiness testing confirmed that the General Ledger module setup is approximately 87% complete; Account Payables module setup is approximately 47% complete; and System Administrator module setup is fully complete.

During operational readiness testing the steps required for functional configuration were confirmed using BR-100 for the General Ledger dated September 15, 2000; BR-100 for Accounts Payable dated July 7, 2000.



2.1.1.1 APPLICATION SET UP CONTROL TABLE - GENERAL LEDGER

Operational readiness testing confirmed that 33 of the 38 required General Ledger module setup steps were complete. The setup tasks for the General Ledger module are detailed in the table below. If the setup task was not required for the SFA FMS implementation the BR-100 status and on-line status is listed as "Not required".

Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
Setup Set of Books				
Chart of Accounts (Step 1A)	Define Value Sets	GL>Setup>Financials>Flexfields> Validation>Sets	Comple ted	Comple ted
Chart of Accounts (Step 1B)	Define Key Flexfield Segments	GL>Setup>Financials>Flexfields> Key>Segments	Comple ted	Comple ted
Chart of Accounts (Step 1C)	Define Rollup groups	GL>Setup>Financials>Flexfields> Key>Groups	Comple ted	Comple ted
Chart of Accounts (Step 1D)	<u> </u>	GL>Setup>Financials>Flexfields> Key>Values	Comple ted	Comple ted
Chart of Accounts (Step 1E)	Rules	GL>Setup>Financials>Flexfields> Key>Security> Define		
Chart of Accounts (Step 1F)		GL>Setup>Financials>Flexfields> Key>Security> Assign		
Chart of Accounts (Step 1G)		GL>Setup>Financials>Flexfields> Key>Rules		



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
Chart of Accounts (Step 1H)	Define or enable Descriptive Flexfields	GL>Financials>Flexfields>Descriptive>Segments	Compet ed	Comple ted
Chart of Accounts (Step 1J)	Define Shorthand Aliases	GL>Setup>Financials>Flexfields> Key>Aliases	Not Needed	
Chart of Accounts (Step 2)	Create Account Combinations	GL>Setup>Accounts>Combinations	Not Needed	
Calendar (Step 3)	Define Period Types	GL>Set Up>Financials>Calendar>Types	Comple ted	Comple ted
Calendar (Step 4)	Define Calendar	GL>Setup>Financials>Calendar> Accounting	Comple ted	Comple ted
Currencies (Step 5)	Define Currencies	GL>Set Up>Currencies>Define	Comple ted	Comple ted
Set of Books (Step 6)	Define Set of Books	GL>Setup>Financials>Books>Define	Comple ted	Comple ted
Set of Books (Step 7)	Assign Set of Books to a Responsibility	System Administrator>Profile>System	Comple ted	Comple ted
Rates (Step 8)	Define Daily Conversion Rate Types	GL>Setup>Currencies>Rates>Types	Not Needed	
Rates (Step 9)	Define Rates	GL>Setup>Currencies>Rates>Dai ly	Not Needed	
Setup General Ledger				
Sources (Step 10)	Define Journal Sources	GL>Setup>Journal>Sources	Comple ted	Comple ted
Categories (Step 11)	Define Journal Categories	GL>Setup>Journal>Categories	Comple ted	Comple ted
Suspense Accounts	Define Suspense	GL>Setup>Accounts>Suspense	Comple	Comple



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
(Step 12)	Accounts		ted	ted
Interfund Accounts (Step 13)	Define Interfund Accounts	GL>Setup>Accounts>Interfund	Not Needed	
Summary Accounts (Step 14)	Define Summary Accounts	GL>Setup>Accounts>Summary	Comple ted	Comple ted
Transaction Codes (Step 15A)		GL>Setup>Accounts>Transaction Codes		
Enhanced Transaction Codes (Step (15B)	Define Enhanced Transaction Codes	GL>Setup>Accounts>Define Enhanced Transactions	Comple ted	Comple ted
Statistical Unit of Measure (Step 16)	Define Statistical Unit of Measure	GL>Setup>Accounts>Units	Comple ted	Comple ted
Historical Rates (Step 17)	Define Historical Rates	GL>Setup>Currencies>Rates>Hist orical	Not Needed	
Document Sequence (Step 18)	Define Document Sequence	GL>Setup>Financials>Sequences >Assign		
Automatic Posting (Step 19)	Define Automatic Posting	GL>Setup>Journal>AutoPost	Not Needed	
Encumbrance Type (Step 20)	Define Encumbrance Type	GL>Setup>Journal>Encumbrance s	Comple ted	Comple ted
System Controls (Step 21A)	Define Program Controls	GL>Setup>System>Controls	Comple ted	Comple ted
System Controls (Step 21B)	Define Storage Parameters	GL>Setup>System>Storage	Comple ted	Comple ted
Budget Control Groups (Step 22)	Define Budget Control Groups	GL>Budgets>Define>Controls	Not Needed	
Profile Options (Step 23)	Define Profile Options	SA>Profile>System	Comple ted	Comple ted



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
Sub Workhow Name			Status	Status
Open & Close Periods (Step 24)	Open and Close Periods	GL>Setup>Open/Close	Comple ted	Comple ted
Additional Setup Steps				
Define Budget Organizations (Step 25A)	Define Budget Organization	GL>Budget>Define>Organization	Comple ted	Comple ted
Define Budget (Step 25B)	Define Budget	GL>Budget>Define>Budget	Comple ted	Comple ted
EDCFO Set of Books				
EDCFO Chart of Accounts (Step 26A)	Define Value Sets	GL>Setup>Financials>Flexfields> Validation>Sets	Comple ted	Comple ted
EDCFO Chart of Accounts (Step 26B)	Define Key Flexfield Segments	GL>Setup>Financials>Flexfields> Key>Segments	Comple ted	Comple ted
EDCFO Chart of Accounts (Step 26C)	Define Segments Values	GL>Setup>Financials>Flexfields> Key>Values	Comple ted	Comple ted
EDCFO Calendar (Step 26D)	Define Period Types	GL>Set Up>Financials>Calendar>Types	Comple ted	Comple ted
EDCFO Calendar (Step 26E)	Define Calendar	GL>Setup>Financials>Calendar> Accounting	Comple ted	Comple ted
EDCFO Currencies (Step 26F)	Define Currencies	GL>Set Up>Currencies>Define	Comple ted	Comple ted
EDCFO Set of Books (Step 26G)	Define Set of Books	GL>Setup>Financials>Books>Define	Comple ted	Comple ted
EDCFO Set of Books (Step 26H)	Open and Close Periods	GL>Setup>Open/Close	Comple ted	Comple ted
EDCFO Set of Books (Step 26J)	Assign Set of Books to a Responsibility	GL>Setup>Financials>Books>Define	Comple ted	Comple ted



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
Consolidation (Step 27)		GL>Consolidation>Define>Mappi ng	Comple ted	Comple ted

2.1.1.2 APPLICATION SET UP CONTROL TABLE - PAYABLES

Operational readiness testing confirmed that 16 of the 34 required Accounts Payable module setup steps were complete. The setup tasks for the Accounts Payable module are detailed in the table below. If the setup task was not required for the SFA FMS implementation the BR-100 status and on-line status is listed as "Not required".

Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
Setup Accounts Payable				
Step 1		DBA issue - completed in VDC	Comple ted	Comple ted
Step 2	Sign-ons and Passwords	System Administration setup - dependent on determining who is resolving open Organization issues		
Step 3	Accounts	GL setup - dependent on GL issue resolution which is in progress		



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
Step 4	Define Accounting Period Types and Accounting Calendar Periods	GL setup - completed in VDC	Comple ted	Comple ted
Step 5	Currences	GL Setup – changed only using USD on documents; setup LPIF and AMF for extension purposes for NSLDS imported invoices	Comple ted	Comple ted
Step 6	Define a Set of Books	GL setup - completed in VDC	Comple ted	Comple ted
Step 7	Assign Set of Books to a Responsibility	GL setup - completed in VDC	Comple ted	Comple ted
Step 8 - NOT NEEDED	Define Rate Types and Daily Rates		Not Needed	
Step 9	Choose a Set of Books	Payables>Setup>Set of Books>Choose	Comple ted	Comple ted
Step 10	Set GL Set of Books ID profile to Updateable	Application Developer setup completed by system administrator	Comple ted	Comple ted
Step 11	DI VIIIC ODUVII	System Administrator > Profile > System complete in VDC though it may be affected by EDCFO books	Comple ted	Comple ted



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
		setup requirements		
Step 12	Define your Payment Terms	Payables>Setup>Invoice>Pay ment Terms	Comple ted	Comple ted
Step 13	Tolerances	Payables>Setup>Invoice>Tole rances Optional setup, should not be required, finalizations is dependent on testing in VDC to ensure no additional setup is required		
Step 14 - NOT NEEDED	Tax Authority Type Suppliers	Suppliers Detail	Not Needed	
Step 15A - NOT NEEDED	Define Tax Names	Payables>Setup>Tax>Names	Not Needed	
Step 15 B - NOT NEEDED	Define Withholding Tax Groups	Payables>Setup>Tax>Withhol ding>Groups	Not Needed	
Step 15 C - NOT NEEDED	L CHILL ALCS	Payables>Setup>Tax>Withhol ding>Certificates	Not Needed	
Step 16	Approvais	Payables>Setup>Invoice>App rovals – accept unalterable defaults; no additional values added at this time	Comple ted	Comple ted
Step 17- NOT NEEDED	Denne	>Distribution Sets – GA: manual invoices will not be used		



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
		for emergency/backup purposes to Form 2000. Instead, one SFA staff will be given access to GA entry forms for emergency purposes only to be used when information is not able to be received electronically.		
		GA Fees : manual invoices/distribution set will be used for emergency invoicing purposes. Dependent upon account mapping.		
		LEAPP: requirements for invoice input in AP is undefined at this time.		
Step 18	Quieneoues	Payables>Setup>QuickCodes>P ayables – may be revised based on payment transfer solution issue resolution	Comple ted	Comple ted
Step 19 - NOT NEEDED	i ilitelest Nates	Payables>Setup>Payment>Int erest Rates	Not Needed	
Step 20- NOT NEEDED	Define Expense Report Template	Payables>Setup>Invoice>Exp ense Report Templates	Not Needed	
Step 21 - NOT NEEDED	I Chilck Codes	Payables>Set Up>QuickCodes>Employee	Not Needed	
Step 22 - NOT NEEDED		Purchasing>Set Up>Personnel>Employees	Not Needed	



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
Step 23 - NOT NEEDED	Enter Employees	Purchasing>Set Up>Personnel>Employees	Not Needed	
Step 24 - NOT NEEDED	Define Reporting Entities (for 1099 Income Tax)	Payables>Setup>Tax>Reporting Entities	Not Needed	
Step 25 - NOT NEEDED	Define Income Tax Regions (for 1099 Income Tax)	Payables>Setup>Tax>Regions	Not Needed	
Step 26 - NOT NEEDED	Define Organization(s)		Not Needed	
Step ?? - NOT NEEDED	Convert Multiple Supplier Banks		Not Needed	
Step 27	Options	Payables>Setup>Options>Fin ancials default accounting setup pending GL ACCS issue resolution and mapping of account code combinations to transaction; default payment method of Check subject to change dependent on treasury transfer extension issue resolution; Supplier Number Entry and Type subject to change based on issue resolutions regarding Institution / Vendor DFF seutp		
Step 28	Define Accounts	Payables>Setup>Options>Pay		



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
		ables – dependent on payment transfer to treasury extension issue resolution (see Payment alternative region setup of bank and EFT number)		
Step 29		Payables>Setup>Payment>For mats – dependent on payment transfer extension solution (coordinating with R. Eller)		
Step 30	Define Additional Payment Formats	Payables>Setup>Payment>Pro grams – dependent on payment transfer extension solution (coordinating with R. Eller)		
Step 31– NOT NEEDED	Update Country and Territory Information and Assign Flexible Address Formats		Not Needed	
Step 32	Accounts	Payables>Setup>Payment>Ba nks – dependent on payment transfer extension solution ; dependent on GL ACCs issues resolution		
Step 33	Open Accounting Period	Payables>Setup>Calendar> AP Accounting Periods – Jun opened in TST1; no period opened in DEV1 (need	Comple ted	Comple ted



		II		
Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
		correction to calendar)		
Step 34	Define Request Sets	Payables>Other>Request>Set – dependent upon Organization issue resolution		
Step 35A – NOT NEEDED	Define Account Segments for Expense Reporting	Payables>Setup>Invoice>Dist ribution Detail Report	Not Needed	
Step 35B	Define Aging Periods	Payables>Setup>Calendar>Ag ing Periods – additional aging period setup may be added at a later point in time coordinated by JB	Comple ted	Comple ted
Step 36A	Create a Printer Style for Vendor Mailing Labels	System Administrator>Install>Printer >Style dependent upon Organization issue resolution		
Step 36B	Create a Printer Driver for Vendor Mailing Labels	System Administrator>Install>Printer> Driver dependent upon Organization issue resolution		
Step 36C	Create a Printer Type for Vendor Mailing Labels	System Administrator>Install>Printer> Types dependent upon Organization issue resolution		
Step 36D	Register a			



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
	Printer for Vendor Mailing Labels	System Administrator>Install>Printer> Register dependent upon Organization issue resolution		
Step 36E	Assign Printer Style to Vendor Mailing Label Report	System Administrator>Install>Printer> Register dependent upon Organization issue resolution		
Step 37 – NOT NEEDED	Define Special Calendars	Payables>Setup>Calendar>Sp ecial Calendar	Not Needed	
Step 38	General Ledger	GL setup – dependent upon GL ACCs issue resoloution, Transaction Code issue resolution, and account code combination mapping by transaction		
Step 39	Voucher Numbering	System Administration>Applications >Document>Define and Assign	Comple ted	Comple ted
Step 40A	Flexfields	Payables>Setup>Flexfields>Desc riptive>Segments – dependent on GL ACCs Institution segment issue resolution and LEAPP / GA verification of information dff requirements		



Workflow SubWorkflow Name	Setup Task	Path	BR-100 Status	On-line Status
Step 40B	Values	Payables>Setup>Flexfields>Desc riptive>Values — dependent on Step 40A issue resolution		
Step 41	Define Profile Options	Payables>Other>Profile	Comple ted	Comple ted
Step 42	GA	Payables>Suppliers>Entry – dependent on AT review of end- user document		
Step 43	Enter Vendors: Leapp	Payables>Suppliers>Entry	Comple ted	Comple ted

2.2.0 Interface Programs/Tables

The chart that follows briefly describes the components that comprise the Application Extensions and lists the modules within each component.

Applicatio n Extension Componen t	Features		Modules
Form 2000	These screens allow the Guaranty Agencies to	?	Monthly Financial
Screens	manually enter Form 2000 Financial Reports		Report
	and submit them to SFA for acceptance.	?	Monthly/Quarterly
	Upon acceptance, the Form 2000 Load for GL		Financial Report
	and AP Interfaces is initiated. The GA	?	Annual Financial
	Maintenance Screen allows SFA to maintain		Report



Applicatio n Extension Componen t	Features	Modules
	agreement date information for each Guaranty Agency. An output hard copy report of Forms 2000 will be available.	? GA Maintenance Screen? Form 2000 Output Report
Form 2000 Data File Load	These interfaces allow the Guaranty Agencies to load their Form 2000 Financial Reports via a data file and submit it to SFA for acceptance. The Guarantee Agencies would also be provided the capability to re-submit financial reports that were rejected by SFA users.	? Monthly Financial Report Data File Load ? Monthly/Quarte rly Financial Report Data File Load ? Annual Financial Report Data File Load
Form 2000 Account Mapping	This screen will allow ED to maintain the account mapping for the data on Form 2000. For each block of data on Form 2000, a prescribed set of journal entries with the authorized accounting segment values must be maintained. This screen allows the authorized user to change these values.	? Form 2000 Account Mapping ? Form 2000 Account Mapping Report
Form 2000 GL and AP Interface	A process will be required to handle loading the information into the open interfaces of Oracle General Ledger and Oracle Payables from the entries made on Form 2000 by the Guaranty Agencies. This process will include mapping Form 2000 entries into proper accounting transactions.	? Form 2000 Invoice Creation Interface ? Form 2000 Journal Entry Interface
NSLDS Interface	A process will be required to handle the information that will be passed from NSLDS for the calculation of Account Maintenance Fee (AMF) and Loan Processing and Issuance Fee (LPIF) (fees to be paid to the Guaranty Agencies). The calculated payment amounts will go into Oracle Payables. Fee payments may be handled either separately or jointly with Form 2000	 ? NSLDS LPIF Interface ? NSLDS AMF Interface ? LPIF Output Report ? AMF Output Report

Applicatio n Extension Componen t	Features	Modules
	payments depending on timing of SFA receipt of information and bi-weekly payment schedule.	
Statement of Account	This report will be generated using data from the Guaranty Agency Financial Report, as well as the AMF and LPIF fee information if the fees have been approved and paid at the time of the Form 2000 payment. This report will be available to a Guaranty Agency once its Financial Report has been approved by ED. The report summarizes the Guaranty Agency's activity and provides information regarding its expected payment.	? Statement of Account

Interface Script Files

The concurrent program manager in the application shows the interface programs that are currently active in the system. All setup files are saved in the server. Copies of the files are saved on the shared drive in the same directory structure.

Interface Forms and Reports

FFELP business processes that are supported by the Phase II FMS implementation require the following interface forms and reports:

- On-line availability for the GA (guarantee agency) to complete and submit financial data.
- On-line availability for the Department of Education to receive the data submitted by the GA.
- On-line availability for the Department of Education to process the data.
- On-line availability for the Department of Education to process invoices and payments.
- Reports generated by the system that details the transactions that were posted on a periodic basis.



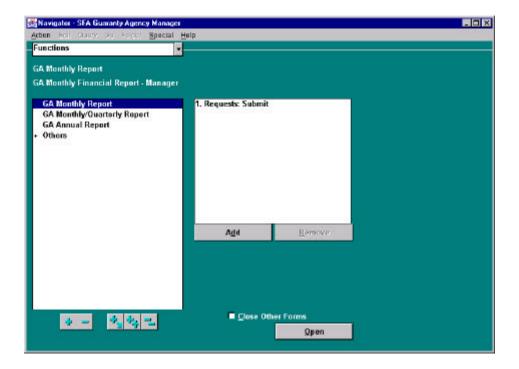
2.2.1 Results of Interface Programs/Tables Test Cases

Interface Script Files

The test logs on the interface design confirm that the setup files are currently in place. Operational readiness testing include locating these files on the shared drive and in the application.

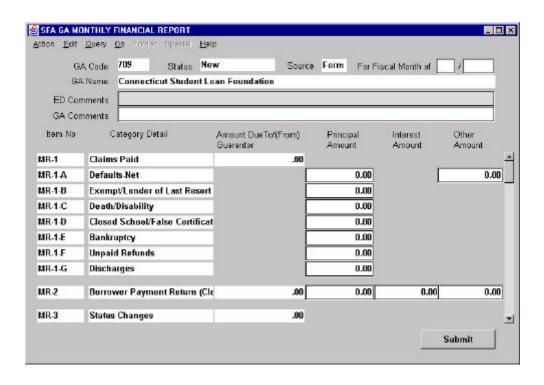
Interface Forms and Reports

The following forms are currently available for GA users to submit to the Department of Education:

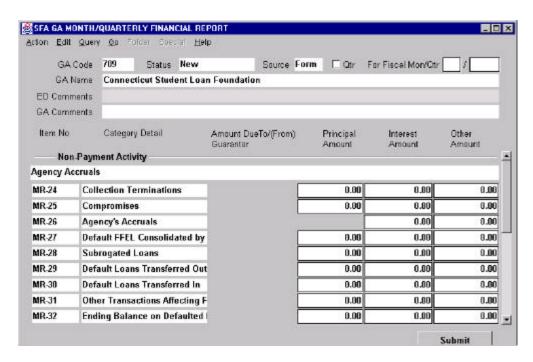


The three forms (GA Monthly Report, GA Monthly/Quarterly Report, and GA Annual Report) have been tested to ensure that the GA is able to submit financial and non-financial data using Oracle Financials.

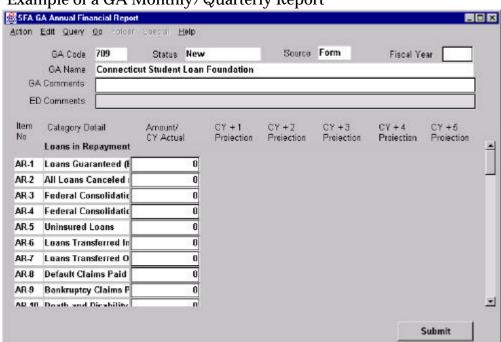




Example of a GA Monthly Report



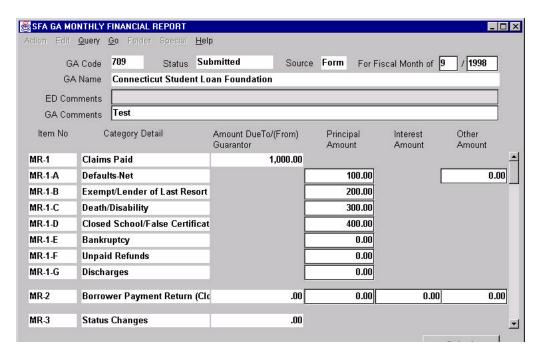




Example of a GA Monthly/Quarterly Report

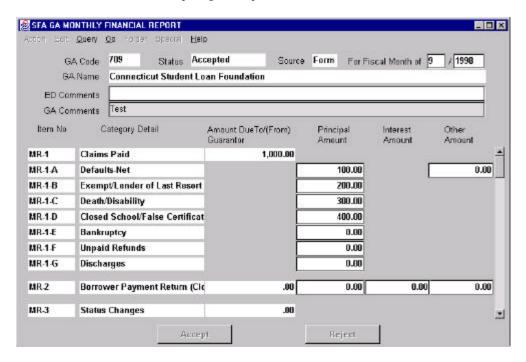
Example of a GA Annual Report

During the assembly and product testing, temporary GA user names were created to test the submission of monthly, quarterly, and annual reports. The submission process was tested and completed. The next step was to test the acceptance of these forms by the Department of Education. The acceptance process was tested and completed. The following exhibit shows a





submission of a monthly report by a GA user.



Acceptance of Monthly Report (Financial Partner)

During assembly testing and product testing, various forms and reports have been tested and completed. All incidents have been documented and addressed.

The FTP (File Transfer Protocol) allows the GAs to transfer data from their machines to the Department of Education without having to manually enter the data in Forms 2000. The GAs transfer the data to the FTP server as a text file. The Load process retrieves the data from the FTP server and populates the data to the appropriate fields of a report in Form 2000. Subsequently, the GAs access the Oracle application, review the report, and submit the report.

The print management of the reports is an issue. Currently, reports need to be copied as a text file using Internet Explorer in order to be printed. This issue will be addressed to the software technical architecture team.

Determining operational readiness is a reiterative process, setup and programmatic changes resulting from assembly testing and product testing may need to be made; which may in turn impact whether the system is operationally ready.



2.3.0 Access and Security

2.3.1 Results of Access and Security Test Cases

Access and Security

Tests have been performed to ensure that proper access to the application is operational.

The following message appears for an attempt to access the database with an invalid user id.



Tests have been performed to ensure that proper access to the EdNet server. Users are only given access to their area of responsibilities.

2.4.0 Execution, Operations and Network Architecture

The FMS application is located in HP servers at the VDC (Virtual Data Center). There are three components of the application that must be operational: the database management system, the web server, and the forms server. All three components, running on six machines, must be operational.

2.4..0.1EXECUTION ARCHITECTURE

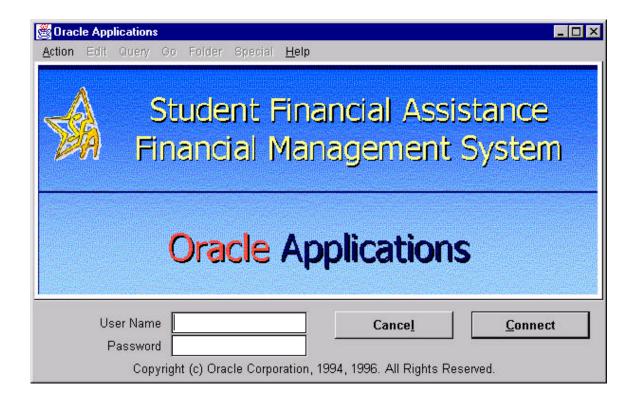
The servers at the SFA Virtual Data Center (VDC) which serve as host for the Oracle Financials application run HP-UX version 11.0. The Oracle J Initiator is required to run Oracle Financials via a web interface and must be installed on each client machine that will be used to access the



application. The Oracle J Initiator is a plug-in software that allows individual workstations to execute and browse the Oracle application.

Windows 95, Windows 98, or Windows NT are the required operating systems. There is no preference regarding the user's operating system as long as the user has the proper access to either the EdNet server or the VPN client software.

2.4..0.2 OPERATIONS ARCHITECTURE



Operational readiness testing included successful logon to each instance. This confirms that the components of the application are active. Logon was successful for all instances. Each instance is a replicated version of the PROD instance and is used by different users for testing purposes. Logon requires valid user identification. The following exhibit shows the logon window for DEV1 instance as viewed by users:





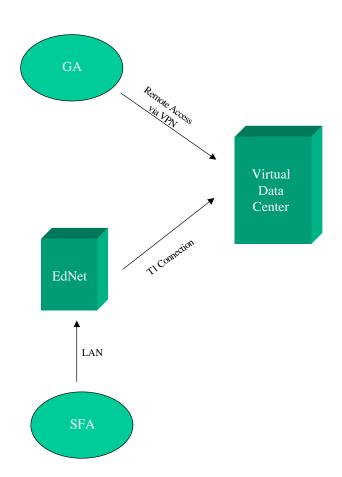
The prod instance is not shown here because access was restricted during development. The prep instance was used to prepare for production. On October 1, 2000, the prep instance will be migrated to the prod instance.

The ability to maintain the system in an operational state, including back-ups recovery and system start-up and shut-down, have been operational since April 2000.

2.4..0.3NETWORK ARCHITECTURE

Access to the application requires a successful connection from the user's machine to the VDC. Two methods for connectivity have been planned for Phase II. The VDC can be accessed through a T1 connection using the EdNet server. VPN client software can be used to provide a direct connection to the VDC from a remote location. This VPN software can be downloaded from the Internet and has to be properly installed on each user's machine. The Department of Education will assign a VPN user id for each user. Using the VPN software also requires knowing the specific IP address of the database by the user. Currently, it is anticipated that Guaranty Agency (GA) users will access the VDC though the VPN client software, other users will access the VDC through the EdNet server.



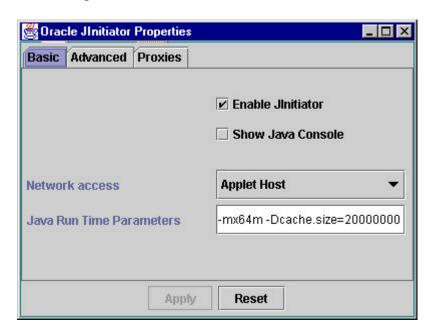


2.4.1 Results of Execution, Operations and Network Architecture Test Cases

2.4.1.1RESULTS OF EXECUTION ARCHITECTURE TEST CASES



The Oracle JInitiator has been loaded on the machines at the Department of Education and was tested on September 5, 2000.



Department of Education

The access to the Oracle application from the machines located at the Department of Education has been successful since April 2000. These machines are connected to the EdNet server.

Remote Location

The VPN client software has been loaded on a stand-alone machine and was tested on September 21, 2000. The access to the Oracle application was tested on this machine using the VPN client software. The machine was connected to an ISP (Internet Service Provider) through a modem.

FTP File

The transmission of an FTP file has been successful since October 2000.

The development and execution architecture has been successfully used since April 2000.





2.4..1.2RESULTS OF OPERATIONS ARCHITECTURE TEST CASES

The system setup steps have been completed for Federal Administrator, Alert Manager, System Administrator, Accounts Payable and the General Ledger. The test cases identified these setup steps and verified that the steps have been completed.

The VPN server, the FTP server, and the HP servers at the VDC have been tested for ability to operate since April 2000.

The Oracle application has been tested for performance since April 2000. In addition, back up recovery to the application has been tested successfully since April 2000.

The results of the Operational Readiness Testing provide assurance that security handling is in place to prevent unauthorized users from accessing the Oracle application. The GA users require separate authorization to access the VPN server, the FTP server, and the HP servers at the VDC. The authorized users have been contacted to determine whether or not they have received the proper user ids and passwords for each server.

The Oracle application has been tested at a detailed level during the Assembly and Product Testing. The results of Operational Readiness Testing provide assurance that that the application supports the business requirements of Phase II.

2.4..1.3RESULTS OF NETWORK ARCHITECTURE TEST CASES

Assembly testing and product testing were conducted by accessing the VDC through the EdNet server, using the same method of connection that is used by the SFA employees. Connecting using the VPN software was successfully tested on August 24, 2000, using the same method to be used by the GA users